CONDITIONED STIMULUS GENERALIZATION AS A FUNCTION OF ANXIETY AND INTENSITY OF UNCONDITIONED STIMULUS

BY

MARVIN HERSKO

B.S., City College of New York, 1949
M.S., University of Illinois, 1952

R. UNIV.
BIBLIOTHEEK
LEIDEN

AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN PSYCHOLOGY
IN THE GRADUATE COLLEGE OF THE
UNIVERSITY OF ILLINOIS, 1953

URBANA, ILLINOIS
1953

CONDITIONED STIMULUS GENERALIZATION AS A FUNCTION OF ANXIETY AND INTENSITY OF UNCONDITIONED STIMULUS

BY

MARVIN HERSKO

B.S., City College of New York, 1949
M.S., University of Illinois, 1952

AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN PSYCHOLOGY
IN THE GRADUATE COLLEGE OF THE
UNIVERSITY OF ILLINOIS, 1953

URBANA, ILLINOIS

1953

ACKNOWLEDGMENT

The writer wishes to express his appreciation to the members of his thesis committee for their helpful suggestions and criticism. The writer is particularly indebted to Dr. G. R. Grice and Dr. L. I. O'Kelly of the University of Illinois Psychology Department for their generous cooperation throughout the planning and execution of this thesis. In addition, the author wishes to express his gratitude to Dr. L. J. Cronbach of the University of Illinois Education Department for his supervision of the statistical analyses and to Dr. H. I. Tiegler of the University of Illinois Hygiene Department for his warm hearted help in securing and testing subjects.

CONDITIONED STIMULUS GENERALIZATION AS A FUNCTION OF ANXIETY AND INTENSITY OF UNCONDITIONED STIMULUS

Forty-eight college undergraduates were conditioned to make the finger withdrawal response to an auditory stimulus. The subjects were selected on the basis of the Biographical Inventory so that 24 were anxious and 24 were non-anxious. Half of the subjects were given a weak electric shock for the unconditioned stimulus while the other half were given a strong shock. Thus there were four conditions (H.A.S.S., L.A.S.S., H.A.W.S. and L.A.W.S.) with twelve subjects in each condition. Half of the subjects were conditioned to a 500 c.p.s. tone, half to a 4,700 c.p.s. tone. After the subjects reached the criterion of 8 out of 10 responses to the C.S. alone they were presented with test stimuli of 500 c.p.s., 1,100 c.p.s., 2,300 c.p.s. and 4,700 c.p.s. The muscle potential of the extensor digitorum communis was used as the measure of response.

It was found that the anxious subjects conditioned in significantly fewer trials than did the non-anxious subjects. Similarly, the strong shock groups conditioned in significantly fewer trials than did the weak shock groups.

The obtained generalization gradients were negatively accelerated, decreasing functions of the difference between the training stimulus and the test stimulus. The hypothesis that the obtained gradients represented chance deviations from a parameter slope of zero was shown to be untenable.

There were no significant differences between groups with respect to the slope of the generalization gradients. However, the experimental variables did affect the elevation of the generalization gradients. The generalization gradients of the anxious subjects were higher than those of the non-anxious subjects, although only under the strong shock condition was the difference significant. Similarly, increasing the intensity of shock elevated the generalization gradient but the difference was significant only for the anxious subjects.

VITA

Marvin Hersko was born September 29, 1925, in Brooklyn, New York. After graduation from Franklin K. Lane High School in 1942 he entered the College of the City of New York. In 1943 he enlisted in the United States Army Air Force and served in the American Theatre until his discharge in 1946. He returned to the College of the City of New York, received the degree of Bachelor of Science in 1949, and entered the Graduate College of the University of Illinois. From September 1950 to August 1951, he held a Research Assistantship in the University of Illinois Student Counselling Bureau. Since September 1951, he has been a trainee in the Veterans Administration Clinical Psychology Training Program.